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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

WS 269-2007

**Diagnosis for brucellosis
(English Translation)**

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Foreword

Chapter 6 of this standard is mandatory and the rest are recommended.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces WS 269-2007 "Diagnostic Criteria for Brucellosis".

Compared with WS 269-2007, the main technical changes of this standard are as follows.

- Added normative references (see Chapter 2);
- Added abbreviations (see Chapter 3);
- Added colloidal gold immunochromatographic test (see 4.3.1.2, Appendix C.2);
- Added enzyme-linked immunosorbent assay (see 4.3.1.3, Appendix C.3);
- Increased Brucella culture smear Gram stain for the detection of suspected Brucella (see 4.3.1.4);
- Revised diagnostic principles and increased clinical diagnosis (see Chapters 5 and 6.2);
- Increased culture of Brucella, method of culturing Brucella by blood culture apparatus

(see D.1 and D.1.1);

- Revised the method for culturing Brucella in a biphasic blood culture flask in the culture of Brucella (see D.1.2);

- Revised the culture method of Brucella cultured by pathological materials in the culture of Brucella (see D.1.3);

- Increased identification of Brucella and related specific tests (see D.2);

- Increased nucleic acid detection of Brucella and BCSP31 polymerase chain reaction (see D.2.5 and D.2.5.1);

- Added AMOS polymerase chain reaction (see D.2.5.2);

- Increased Brucella genomic DNA extraction method (see D.2.6);

- Increased biosafety requirements for Brucella test (see D.3);

- Removed the plate agglutination test (PAT) (see C.1.1 of the 2007 edition);

- Removed skin allergy test (see C.2 of 2007 edition);

- Removed the unfertilized chicken eggs from Brucella culture (see C.3.1.2 of the 2007 edition);

- Removed the urine culture method of Brucella culture (see C.3.2 of 2007 edition);

- Removed the biologically isolated Brucella method for blood culture (see C.3.4, 2007).

This standard was drafted. China Center for Disease Control and Prevention, China Center for Disease Control and Prevention, Beijing Ditan Hospital, China Disease Prevention and Control Heart plague brucellosis prevention and control base, Shanxi Provincial Center for Disease Control and Prevention, Liaoning Provincial Center for Disease Control and Prevention, Hubei Province Disease Prevention Control Center, Inner Mongolia Autonomous Region Comprehensive Disease Prevention and Control Center, Hangzhou Municipal Center for Disease Control and Prevention, Qinghai Provincial Institute of Endemic Disease Prevention and Control.

1 Scope

This standard specifies the diagnostic basis, diagnostic principles, diagnosis and differential diagnosis of human brucellosis.

This standard applies to the diagnosis of brucellosis in various types of medical and health institutions and their medical staff at all levels.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest edition (including all amendments) applies to this document.

Regulations for the Administration of Highly Pathogenic Microorganisms (Poisonous) Species or Samples for Infection of Humans, Ministry of Health Order No. 45, 2005 List of Pathogenic Microorganisms Infected by Humans, Ministry of Health (Wei Shi Jiao Fa [2006] No. 15) Technical Regulations for the Safe Transport of Dangerous Goods, Airline (Doc 9284)

3 Abbreviations

The following abbreviations apply to this document.

CFT. complement fixation test DNA. deoxyribonucleic acid dNTPs. deoxy-ribonucleoside triphosphate ELISA. enzyme linked immunosorbent assay GICA. gold immunochromatography assay PBS. phosphate buffer saline PCR. polymerase chain reaction RBT. rose bengal plate agglutination test RTD. routine test dilution SAT. serum agglutination test

4.1 Epidemiological history

Before the onset, the patient has close contact with livestock and livestock products suspected of Brucella infection, or raw food for cattle, goat milk and meat products, or raw Live in brucellosis; or engage in Brucella culture, testing or Brucella vaccine production and use. Other epidemiological parameters See Appendix A.

4.2 Clinical manifestations

4.2.1

There is fever (including low fever), sweating, fatigue, muscle and joint pain for several days or even weeks.

4.2.2

Some patients have lymph nodes, liver, spleen and testicular swelling, a small number of patients may have a variety of rashes and jaundice; patients in acute and chronic phase can manifest as bone and joint system damage. See Appendix B for specific clinical manifestations.

4.3.1 Laboratory screening

4.3.1.1

The results of the tiger red plate agglutination test (RBT) were positive.

4.3.1.2

Colloidal gold immunochromatographic test (GICA) results were positive.

4.3.1.3

The results of the enzyme-linked immunosorbent assay (ELISA) were positive.

4.3.1.4

Brucella culture smear Gram staining detected suspected Brucella.

4.3.2 Laboratory diagnosis

4.3.2.1

Brucella is isolated from cultures of any pathological material such as blood, bone marrow, other body fluids, and excretions.

4.3.2.2

Test tube agglutination test (SAT) titer of 1.100 and above, or patients with a disease duration of more than one year and still have clinical symptoms the titer is 1.50 and above.

4.3.2.3

Complement binding test (CFT) titer is 1.10 and above.

4.3.2.4

Anti-human immunoglobulin test (Coomb's) titer of 1.400 and above.

5 Diagnostic principles

The occurrence, development and outcome of brucellosis are complicated, and its clinical manifestations are diverse. It is difficult to determine the diagnosis with a certain symptom.

The diagnosis of brucellosis should be combined with the patient's epidemiological exposure history, clinical manifestations and laboratory tests.

6.1 Suspected cases

Meets 4.1 and meets 4.2 at the same time.